

NPDES / NJPDES COMPLIANCE SAMPLING INSPECTION (CSI) REPORT

Bayonne Dry Dock & Repair Corp., Inc. Bayonne, New Jersey 07002

NJ 022 5746

July 13, 2016

Participating Personnel:

U.S. Environmental Protection Agency www.epa.gov Kathleen M. Foley, Environmental Scientist

Alex Rivera, Environmental Engineer Alyssa Baker, EPA Student Intern Camille McCall, EPA Student Intern

Bayonne Dry Dock & Repair Corp, Inc.

Michael Cranston, President

Kevin Sullivan, Operations Manager, Director

Matthew Urm, Triassic Technology, Inc. N2 WWTP Operator

Christine Kretzmer, Malkin Environmental, Sampler

Report Prepared By:

Kathleen M. Foley, Environmental Scientist

Monitoring Operations Section, MAB

Approved for the Director By:

John S. Kushwara, Chief

Monitoring and Assessment Branch (MAB)

USEPA NJPDES Compliance Sampling Inspection Report - Bayonne Dry Dock & Repair Corp.

NJPDES No. NJ 022 5746

NJPDES No. NJ 016 5808 - Stormwater and Sediment

Date of Inspection: July 13, 2016

Bayonne Dry Dock & Repair Corp. Inc. www.Bayonne Dry Dock.com 100 Military Ocean Terminal - Port Terminal Boulevard (PO Box 240) Bayonne, Hudson County, New Jersey 07002

Bayonne Dry Dock & Repair Corp. Inc. Participants (201)823-9295/9296; FAX: (201)823-9298 Michael Cranston, President

Kevin Sullivan, Operations Manager, Director, (201)823-9225 ksullivan@bayonnedrydock.com Matthew Urm, Triassic Technology, Inc., N2 WWTP Chief Operator/Consultant Christine Kretzmer, Malkin Environmental & Excavating, LLC, WW Sampler



Aerial Image from BDD Webpage

U.S. EPA CSI Participants – www.EPA.GOV

Kathleen M. Foley, Environmental Scientist, (732)321-6790 savino.kathleen@epa.gov Alex Rivera, Environmental Engineer Alyssa Baker, EPA Student Intern Camille McCall, EPA Student Intern

NJDEP Participants – Reconnaissance Inspection (July 6, 2016)

Christine Blaney, Environmental Specialist, christine.blaney@dep.nj.gov Northern Bureau Kevin Ball, Environmental Scientist, Bureau of Nonpoint Pollution Control June R. Gazek-Harris, P.G., Environmental Specialist, Bureau of Nonpoint Pollution Control



Image from BDD Website Showing Scale of Operation

Summary

Based upon the results of the July 13, 2016 NJPDES Compliance Sampling Inspection (CSI) of Bayonne Dry Dock & Repair Corp. Inc, no deficiencies were observed with respect to the requirements and limitations of NJPDES Permit No. NJ 022 5746. None of the samples was found in exceedance of the NJPDES Permit. An evaluation of their catch basins and various stormwater BMPs related to their stormwater permit, NJPDES Permit No. NJ 016 5808, resulted in a satisfactory rating.

Objective

At the request of the EPA regional program office and the NJDEP, EPA conducted an announced NJPDES 24-hour CSI at the Bayonne Dry Dock & Repair Corp. Inc, hereinafter referred to as Bayonne Dry Dock or BDD, on July 13, 2016. Prior to this July 13 inspection, a Reconnaissance Inspection was conducted July 6 to evaluate the wastewater treatment (WWT) system and the configuration of its discharges and sampling locations.

The inspection was conducted at the request of NJDEP as part of the EPA-DECA workplan agreement and to provide NJDEP information from the discharges due to the BDD's NJPDES Stormwater Permit undergoing renewal. Another purpose of this inspection was to determine whether the permittee is discharging in compliance with the requirements and limitations of its NJPDES permit(s), i.e., NJPDES Permit No. NJ 022 5746 for the sump pump discharge through DSN 001A and No. NJ 016 5808 for the four stormwater discharges and two sediment monitoring locations.

Besides citizen inquiries over the years, the NJDEP permit writers were concerned with pumping mechanisms possibly not being reported, and discharge of contaminated wastewater high in metals from grinding and sanding operations, through an underground system. In addition, DECA-WCB inspectors recommended this facility based upon an EPA Oversight Inspection conducted 4/1/14.

Facility History and Background

The 430-acre peninsula at Bayonne's shipping port terminal on New York Bay was constructed of dredged and filled material in the 1930s to create additional industrial space for the city. During World War II in 1942, the United States Navy acquired the property for use as a dry dock and supply/logistics center and took on the name Marine Ocean Terminal Bayonne (MOTBY). (Dry dock has three spellings which include dry-dock or drydock.)

MOTBY was used during every major U.S. military operation since then, including the Persian Gulf War (ending in 1991). By 1967, the peninsula became a United States Army base which housed some of the Atlantic Reserve Fleet. It had the largest dry dock on the eastern seaboard able to accommodate of all types of cargo. Ships carried goods from the terminal which could handle a full range of munitions loaded onto the vessels using dedicated rail lines on-site.

But with the end of the Cold War, the federal government decided to close MOTBY in 1995, and completed closure in 1999 under a BRAC directive. Since that time, the area has been undergoing redevelopment into a mix-used waterfront community. Bayonne Dry Dock (BDD) opened in 1998 at the former MOTBY with no discharge permit. BDD was issued its first NJPDES permit on 12/19/07.

In 2002, MOTBY was officially renamed "The Peninsula at Bayonne Harbor" whose complex is made up of six distinct districts. BDD occupies portions of the Maritime Industrial District at the end of the long pier. Refer to the aerial image of the facility property (included as Figure #1) at the end of the narrative report on page 14. The Cape Liberty Cruise Port is also located at the end of this long pier.

In 2010, the Port Authority purchased 130 acres along the waterfront intending to create more port facilities. In 2015, the Bayonne City Council entered into a settlement which prevents the Port Authority from developing its land as a container port for 30 years.

Permits: Industrial Wastewater Discharge (NJ0225746) and Stormwater/Sediment (NJ0165808) (Acronyms: EDP = Effective Date of Permit; XDP = Expiration Date of Permit)

The original NJPDES Permit (NJ0165808) was issued on 12/19/07 with EDP 3/1/08 and XDP 2/28/13. It was modified 12/1/10. Upon its expiration in 2013, it was divided into two separate permits - the industrial wastewater discharge (No. NJ0225746) and the former permit for the stormwater outfalls and sediment monitoring.

Industrial Wastewater Discharge (NJ0225746): Issued 7/3/14 with EDP 10/1/14 and XDP 9/30/19

The industrial wastewater intermittent discharge to surface water associated with the WWT system is permitted for DSN 001A, AKA the sump pump discharge. On August 9th 2014, it underwent a minor modification, but retained its EDP and XDP.

Stormwater/Sediment (NJ0165808): Issued 12/19/07 with EDP 3/1/08 and XDP 2/28/13

This permit regulates stormwater discharges and requires sediment monitoring at two locations. The NJDEP is currently revising the NJPDES Permit No. NJ 016 5808 and requested sampling results. The permittee applied for a NJPDES permit renewal to the NJDEP Bureau of Nonpoint Pollution Control on 2/24/14. In addition, a Stormwater Discharge Renewal Permit Action was posted in an 11/18/15 NJDEP Bulletin Notice.

Although the stormwater permit was not yet renewed, this permit remains in full force and effect until a renewed permit is issued by NJDEP. Part 3 of the permit contains monitoring requirements for DSN 001, but *that portion* of the permit is no longer relevant due to it being captured on the industrial wastewater discharge permit specifically for DSN001A.

On 05/28/15, the NJDEP and BDD entered into an Administrative Consent Order (ACO) to address numerous effluent violations – mainly metals, at outfall 001A. The WWT system was installed to, among other reasons, comply with the NJPDES permit limitations, in particular, zinc and copper.

Facility Description

BDD operates a full service ship repair yard, engaged in the industrial activity of repairing and painting of large commercial and military ships (SIC 3731: Ship Building and Repair). This can include emergency repairs, paint removal and repainting (with rust inhibitor and marine paint), ship customizations/overhauling, and routine maintenance. To accomplish this, BDD floods the dry dock, floats the ship in, closes the caisson door and pumps the water out. The ship is then held up with blocks or other supports. Repairs usually take approximately 90 days. According to their website, the capacity of the work area, known as the graving dock is 1092' x 148' x 35'. The wet berth is 1600' x 35'.

All work is done in accordance with the standards of the American Bureau of Shipping, U.S. Coast Guard, Lloyd's Register and Det Norske Veritas. According to the BDD website, shops are run by craftsmen and include such services as: Carpenter Shop, Electrical Shop, Machine Shop, Piping Shop, Plate Shop, Tailshaft Shop, Rigging Shop, Sandblasting and Paint Shop. With the support of various cranes (gantry and mobile), the facility can accommodate capacities of 40 tons and 64 tons. In addition, electrical and diesel pumps are available with 1,800 GPM capacity at 150 PSI.

One of the common operations requires rust and paint removal, including the toxic bottom paint designed for killing marine organisms. It is typically indicated by a black line or red line. This is typically done by blasting. Sandblasting using blasting grit material known as Black Beauty, a byproduct of coal incineration, is especially useful at removing rust. However, this practice requires extra manpower for clean-up of the sandblasting waste. According to BDD representatives, "We don't sandblast that much anymore. We only hydro-blast."

Water and Wastewater

Fresh water is obtained from the city of Bayonne. Sewage is plumbed to the city of Bayonne sewer system.

Wastewater from DSN 001A consists of discharges from the sump well, which is located inside the dry-dock, and gets pumped up to the treatment system. This sump well collects wastewater from such sources as: water from the leaking caisson gate (leaks approximately 300 gpm) to sump pump, water from the washing of boat hulls, condensate from HVAC systems on ships, process water from blasting operations, firehose testing, stormwater run-off (SWRO), and various other leaking water such as infiltration from sea water.

Prior to treatment, wastewater may include: paint chips (containing metals), spent abrasives (copper slag), cleaning/paint stripping solvents, ship surface contaminants, bilge and ballast tank residuals, rinse water, waste equipment cleaning water, and overspray from painting operations (containing paint pigments and solvents).

According to their permit, "The drydock shall be cleaned of all residuals materials before discharge to DSN 001A can occur, and the drydock shall be cleaned of all residuals materials before it is filled with bay water. Specifically, all source material and residual must be removed. If a treatment system is installed and utilized for all effluent discharged through DSN 001A, the drydock shall be pressure washed to ensure the drydock is free of all source materials before it is filled with bay water. The pressure washwater shall be discharged through the treatment system via DSN 001A." Photo #1 below shows a typical work day and the immense area needing cleaning.



Photo #1: Typical Work Day - Photo by USEPA

The treated wastewater is discharged on an intermittent basis from an 8-inch (non-submerged) pipe at the end of the pier to Upper Bay – The Narrows, a section of Upper New York Harbor, classified as SE2(C2) or saline estuary. It is located among the Newark Bay / Kill Van Kull / Upper NY Bay Watershed.



Photo #2: Discharge 001A to Upper New York Harbor

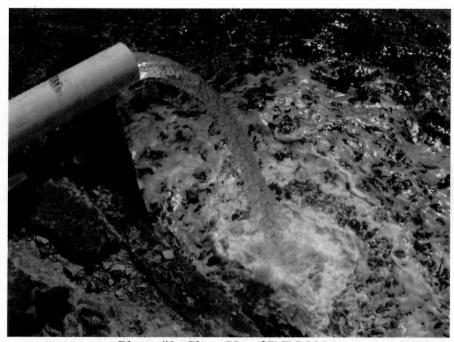


Photo #3: Close-Up of DSN 001A

Stormwater

Three additional monitoring locations, DSN 002A and DSN 003A, and 004A consist of facility stormwater and are covered in a separate Stormwater Permit (No. NJ 016 5808). These stormwater outfalls discharge only during heavy rain events and will be sampled for permit requirements when appropriate conditions permit. Almost all requirements under the stormwater permit are "monitor only" except for petroleum hydrocarbons and pH range of 6-9 SUs.

Spent grit from blasting operations must be removed from the dock floor and is stored under a permanent structure consisting of shipping containers and a permanent roof. Continued monitoring of this area is conducted by the permittee to identify any runoff.

Due to the size of the dry dock and the capacity of the sump pumps, the existence of additional pumps in an underground vault raised questions with the EPA and NJDEP inspectors on their purpose within the grand scheme of the operation. These 10 feet wide and ½ mile long conveyances are not included in the permit applications, nor in the rough schematic of flow streams. If these pumps are able to circumvent the treatment process and discharge wastewaters contaminated with residue, a significant amount of heavy metals can be discharged without being captured on DMRs.

Wastewater Treatment (WWT) Description

The wastewater treatment (WWT) system was completed in 2016. It is a package plant comprised of various filters (bag, sock, sand, resin), most of which is housed inside an 8' x 20' shed (sea container). The final treatment process involves ion exchange filtering. A network of piping systems and valves is provided for backwashing and flexibility of operation. Monitoring of pressure differentials drives many of the treatment operations. The system is designed for maximum throughput of 350 gallons per minute (gpm). Final treated effluent discharges into the adjacent Upper New York Harbor through outfall 001A.

Removed solids are deposited in an adjacent, lined roll-off container for dewatering. After testing, determinations are made for proper disposal. A very simplified WWT flow schematic is attached as Figure #3. A more detailed description of the WWT process is retained in the project file and is not included here (for privacy considerations).



Photo #4: Piping from Sump to WWT System and To Outfall



Photo #5: View Inside Shed Showing Some Components of the WWT System

To WWT

Filtered Solids are stored in a roll-off container for further dewatering (see photo #6 below). Because rain and snow can impact the moisture content of the materials, EPA recommended to Mr. Sullivan and Mr. Urm that this container be covered more securely and tightly.



Photo #6: Filtered Solids in Roll-Off Container

The Compliance Sampling Inspection (CSI)

The EPA inspectors checked into the Guard Gate/ Security Office, presented their EPA enforcement credentials, and obtained an escort, required to enter the facility property and conduct an inspection. Since this inspection was coordinated with BDD, the contractors were anticipating EPA's involvement. After conferring with the WWT system contractor, Triassic Technology, Inc., and the wastewater sampling contractor, Malkin Environmental and Excavating LLC, EPA set-up sampling equipment and calibrated instruments in preparation for the WWT system discharge.

The nature of this discharge is a batch treatment process which discharges episodically or intermittently. Split samples were offered to facility representatives at the start of the CSI. BDD representatives requested splits of the composite sample, but BDD contractors Malkin Environmental and Excavating and Triassic Technology, Inc., the WWT system chief operator, collected their own grab samples alongside USEPA.

Grab samples were collected from the tap provided, which is just upstream of the final discharge to the Upper New York Harbor. The required monitoring location described in their permit states, "Samples shall be taken immediately prior to discharge through DSN 001A and shall be representative of normal facility operations ..." Although the optimal sample point is at the end of the pipe, safety precautions dictated that samples be collected from the sampling tap provided in the effluent discharge pipe. This is also the location the contractors use for collecting samples.

EPA installed an automated composite sampler with a glass collection vessel and Teflon tubing, at the end of the WWT system, collecting sample aliquots every 5 minutes for the period of batch discharge (which amounted to 4 hours and 4 minutes). The automated composite sampler started at 1012 hrs, and ended at 1441 hrs., on July 13. The EPA composite sampler location and set-up is depicted in photo #7 below. Since the facility representatives assured EPA that this would be the entire discharge for the 24-hour period, the composite sample represents the 24-hour period.

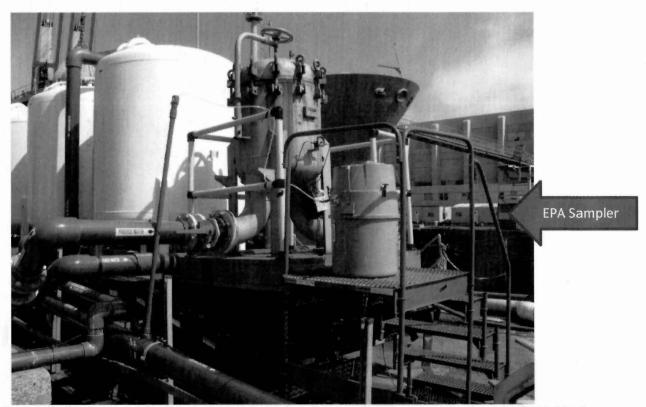


Photo #7: Wastewater Treatment and EPA Automated Composite Sampler Monitoring DSN 001A

During the CSI, 24-hour composite and grab samples were collected following the requirements of the permit. Grab samples were collected from the tap provided for pH, TSS, petroleum hydrocarbons, oil and grease (HEM), TOC, total cyanide and VOAs. The composite sample was analyzed for select metals, pesticides/PCBs and NVOA. Most, but not all parameters were sampled for, based upon the judgement of the inspector and past monitoring data.

Since there was no rain event during the EPA sampling, the stormwater outfalls were not sampled. The USEPA samples and split samples were preserved on-site following the requirements of 40 CFR §136 and transported on ice to the EPA Regional Laboratory in Edison, New Jersey for analysis. Appropriate chain-of-custody procedures were maintained throughout the survey and analyses. The results of all samples collected are summarized in Tables #1 and #2 of the Findings section below.

Findings

The results of the July 13, 2016 24-Hour NJPDES CSI of Bayonne Dry Dock and Repair Corp are summarized in Tables #1 and #2 below, presenting a summary of the samples collected from the main outfall, DSN 001A. The effluent being discharged appeared clear.

The permittee uses a totalizer to measure the effluent flow for DMR reporting. The total flow for the sampling period was calculated by recording the totalizer readings at the start of the discharge and at the conclusion of the discharge period. The total flow of treated wastewater released from the WWT system was 53,492 gallons. Since the discharge lasted approximately 244 minutes, the average flow rate was 219 gpm. This is within the recommended operating range of the WWT system.

None of the NVOAs, pesticides or PCB's samples analyzed resulted in detectable quantities.

Table #1: USEPA Compliance Sampling Inspection for Bayonne Dry Dock – July 13, 2016

Parameter	Units	Permit Limitation	EPA Sampling Result
Flow	GPD	m.o. Mo Avg (x);	53,492
		m.o. Daily Max	,
pH Eff	S.U.	6.0 - 9.0	7.71
TSS	mg/L	Mo $\ddot{\mathbf{x}} = \mathbf{Report\ Only};$	15
		Daily $Max = 100$	
Cyanide, Total	ug/L	m.o. 6 mos. pre-XDP (RQL=40)	<10 U L
TOC	mg/L	Mo \ddot{x} = Report Only;	1.0
		Daily $Max = 50$	
Oil and Grease (HEM)	mg/L	Mo $\ddot{x} = 10$ / Daily Max = 15	< 5.0 U
PHCs	mg/L	m.o.	< 5.0 U
PCBs	ug/L	m.o. 6 mos. pre-XDP	Undetected
Pesticides	ug/L	m.o. 6 mos. pre-XDP	Undetected

m.o = monitor only Mo \ddot{x} = monthly average

RQL = Recommended Quantitation Levels*

U = analyte was undetected at or near the Reporting Limit (RL) L = may be biased low

Metals: Table #2 below summarizes the July 13, 2016 sampling results for metals.

- Chromium and Manganese require monthly monitoring with no limitations.
- Only four of the required metals to be monitored have monitoring limitations.
- ❖ Lead and arsenic are limited to 50 ug/l monthly average and 100 ug/l daily maximum.
- ❖ Zinc and copper limits have been increased (i.e., relaxed) to 300 ug/l for both daily maximum and monthly average while the ACO is in effect.
- The remaining metals shown in Table #2 only require monitoring within 6 months of the XDP.
- Of the metals tested, three resulted in detectable quantities: Copper (19), magnesium (860,000), and manganese (83). (Magnesium is not a required permit parameter)

^{*}Recommended Quantitation Levels (RQLs) are listed in the tables for some of the parameters. The Department (NJDEP) developed the RQLs to insure that useful data is provided to the Department in order to characterize the discharger's effluent. The Department recommends that the permittee achieve detection levels that are at least as sensitive as the RQLs.

Table #2: EPA Sampling Results for Metals at BDD – July 13, 2016

Parameter	Units	Permit Limitation	EPA Sampling Result
Arsenic	ug/L	Mo $\ddot{x} = 50$ / Daily Max=100 (RQL=8)	< 8 U
Chromium	ug/L	m.o.: Mo x / Daily Max (RQL=10)	<5 U
Copper	ug/L	300 (per ACO)	19 J
Lead	ug/L	Mo $\ddot{x} = 50$ / Daily Max=100	<8 U
Manganese	ug/L	m.o.: Mo x /Daily Max	83
Zinc	ug/L	300 (per ACO)	<20 U J
Mercury, Total	ug/L	m.o. 6 mos. pre-XDP (RQL=1)	< 0.2 U
Cadmium	ug/L	m.o. 6 mos. pre-XDP	<3 U J
Thallium	ug/L	m.o. 6 mos. pre-XDP (RQL=10)	< 20 U J
Silver	ug/L	m.o. 6 mos. pre-XDP (RQL=2)	<5 U J
Antimony	ug/L	m.o. 6 mos. pre-XDP (RQL=20)	<20 U
Nickel	ug/L	m.o. 6 mos. pre-XDP (RQL=10)	<20 U
Selenium	ug/L	m.o. 6 mos. pre-XDP (RQL=10)	<20 U
Magnesium	ug/L	No Monitoring Required	860,000

m.o. = monitor only

U = analyte was undetected at or near the Reporting Limit (RL)

Mo \ddot{x} = monthly average

J = estimate

Data <u>Usability Evaluation</u> – Refer to the attached Laboratory Report.

- The reporting limit (RL) for this analysis of magnesium was raised to 500 ug/L.
- The RL for this analysis of 2,4-Dinitrophenol was raised to 32 ug/L and resulted in undetected.
- The RL for this mercury analysis was 0.2 ug/L and resulted in undetected. The permit requires use of EPA Method 1631E.

Other concerns were relayed to the USEPA by NJDEP permit writers.

- They felt the flow schematics for wastewater sources were incomplete and misrepresented some of the discharges.
- They also felt that due to the high burden of heavy metals and toxicants from industrial sources and loadings from rivers into this historic New York Harbor, BDD should incorporate higher standards for pre-clearance cleaning, comparing this facility to others on the West Coast.
- They also felt that greater scrutiny on sandblasting waste should be investigated since the waste amounts should be heavier than the virgin amounts due to occluded water weight.

In addition to this sampling effort, an evaluation of the quality and reliability of the self-monitoring data and facility operations, including a facility tour was conducted. The EPA inspectors also attempted to investigate the bases of the NJDEP officials' concerns. Although no deficiencies or concerns were discovered, this does not confirm that the concerns are not still valid, however.

Conclusions and Recommendations

Based upon the results of the July 13, 2016 NJPDES Compliance Sampling Inspection (CSI) of the Bayonne Dry Dock & Repair Corporation facility, no deficiencies were observed with respect to the requirements and limitations of NJPDES Permit No. NJ 022 5746. Continued compliance with all environmental permits is requested.

Outstanding actions are two additional USEPA CSIs to be conducted, and EPA inspector participation is requested in a pre-clearance inspection accompanying the NJDEP.

- One CSI for the three stormwater outfalls, which will require a qualifying rain event.
- ❖ One sediment sampling event using SCUBA divers, to be timed with the permittee's dive team. According to the permit, the singular sampling event of the sediment just off of the caisson gate "doors", is to occur between June 1 and September 30 of each calendar year.
- Participation in the pre-clearance inspection required by the permit prior to flooding the deck is requested.

Attachments

Figure #1: Aerial Image from Google®

Figure #2: Simplified Schematic Showing Sampling Points/Discharge Points

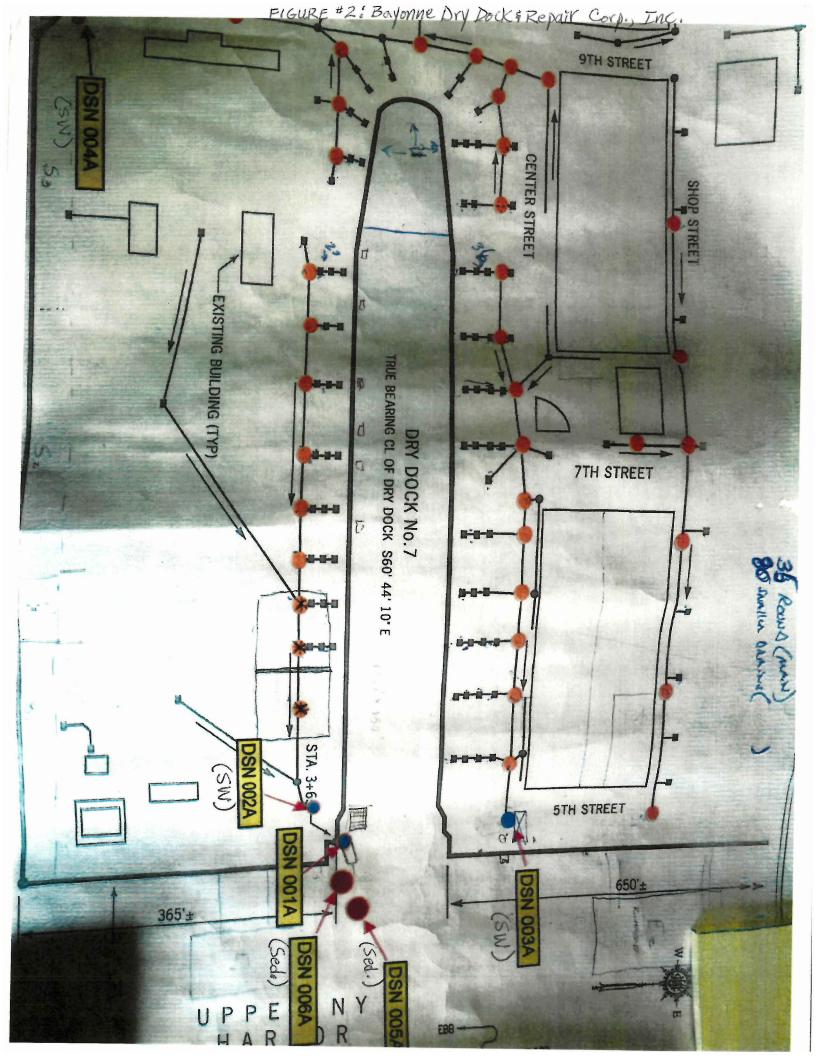
Figure #3: Simplified Line Drawing for Estimated Flow Contributions

Attachment #1: Chain-of-Custody for Sample Collection Attachment #2: EPA Analytical Laboratory Report (11 pp)

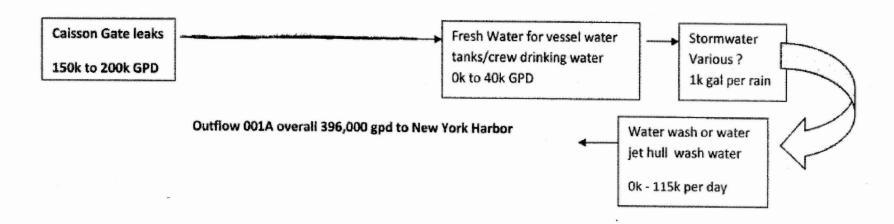
Attachment #3: EPA Form #3560-3 (1 p)



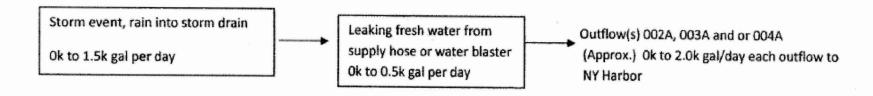
Figure #1: Aerial Image of Bayonne Dry Dock from Google®



Line Drawing for Graving Dock outflow 001A



Line Drawing for Stormdrains 002A, 003A, 004A



US EPA REGION 2 LABORATORY CHAIN OF CUSTODY/ FIELD DATA FORM

Page	4	_ of	1	pages
------	---	------	---	-------

COLLEGE IN MINE OF FOOT PLANT	Bayonne Di	y Dock	OPERABLE	LINIT		PROJECT	LEADER FOL	ey		
PROGRAM: SF : : Decision RCF Unit Code Y206 D21	RCRA ENF	1	SDWA C215	AM 🔲 B224	CAA 🗆 A305	TSCA L	OD FIFR B253		CRIM	INAL ENF
Permit #: NJ 6225746 LAB ID/ FIELD ID	E CHECK IF	ESCRIPTION & II				Res C Check		(24h	tion Time r clock) (////////////////////////////////////	Collection Date mm/dd/yy
BDD Comp	2 A - 1.2	Amber:	Pesti	wes/	PCBS 1	607026-01	□ 6 12345678910	1012	1441	07/13/16
	2A 19	Auler!	NV	0#		-01	□ 2345678910	1	1.1	
4 4	1 A D SO	Onlolas	Hic: M	etals	+++	-01	016845678910	4	+	4
BDD Grab	1 A 12:	5 ne plasti	X = 7	TOC.		-02	□00£345678910	-	1000	
	1 A 12	5 nd plas	AC: T	otal	Cyanide	2 -02	Q123456) 8010		1	
	3 A - 18	wings	ass:	0/6	/	-02	□@12345678910	-		
	3 A - Ll	wingl	ess:	TPT	}	_02	Q120 5678910	-		
4 4	14 50	oal Bl	isika	TSS		-02	□ 6 12345678910	-	*	
BDD VOA Grab#1	3 A - 40	ne way	rials:	VOT		-03	□012345678910	-	1000	
BDD VOA Grab#2		me vox	vials !	VOA		1 -04	012345678910	-	1400	4
COMMENTS & SPECIAL REQ		water 5 Zn		ir, Lu	, Mn, S	e, Th	E. A. (1	Present 0=ice 1=H2SO4 2=HNO3 3=HCl pH 4=Na2S2 5=NaOH 6=Ascorb	i pH<2 pH<2 i<2 O3 pH>9	d & Checked 7=FAS 8=ZnAc 9=NaOH pH>12 10=NH4CI
	4 Hg				n Assuming Resp		ple(s)*		me	Date
				Ko	telan ?	Juley		144	207	13/16
Matrix: A=aqueous B=aqueous (chlorinated) C=soil D=sediment E=sludge Matrix: F=multiph. G=solvent H=biota I=oil J=other		en Fol	ley	Re	ceived by:	Joseph S		10:2	25 7	1/14/16
Survey Complete? Y N	Relinquished By:	Direct 9	gad Son	mfl , Re	chilly	- Quitati	A, A 8	14/16 rev	rised 10/2	5/2004

Attachment #2: BDD Lab Report



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 2 Laboratory 2890 Woodbridge Avenue Edison , New Jersey 08837 732-906-6886 Phone 732-906-6165 Fax

September 15, 2016

John Kushwara Monitoring & Assessment Branch DESA/MAB Edison, NJ 08837

RE: Bayonne Dry Dock(sump) - 1607026

Joe R. Amlon

Enclosed are the results of analyses for samples received by the laboratory on 07/14/2016. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 1607026 and contact the laboratory.

Sincerely,

John R. Bourbon Chief, DESA/LB

<----Please click here to complete the EPA Region 2 Lab Project Survey--->



Final Report

Project:Bayonne Dry Dock(sump) - 1607026 Project Number: 1607026

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
BDD Comp	1607026-01	Aqueous	07/13/2016 14:41	07/14/2016 10:25
BDD Grab	1607026-02	Aqueous	07/13/2016 10:00	07/14/2016 10:25
BDD VOA Grab#1	1607026-03	Aqueous	07/13/2016 10:00	07/14/2016 10:25
BDD VOA Grab#2	1607026-04	Aqueous	07/13/2016 14:00	07/14/2016 10:25



Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Cyanide, Total	EPA 335.4 SOP C-28 Rev2.4	NELAP	Aqueous
Mercury	EPA 245.1 SOP C-110 Rev2.4	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev3.3	NELAP	Aqueous
Oil & Grease	EPA 1664A SOP C-126 Rev1.3	NELAP	Aqueous
Organic Carbon	SM 5310 B SOP C-83 Rev2.5	NELAP	Aqueous
Pesticides/PCBs-NPDES	EPA 608 SOP C-91 Rev4.0	NELAP	Aqueous
Petroleum Hydrocarbons, Tot.	EPA 1664A SOP C-126 Rev1.3	NELAP	Aqueous
SVOA NPDES	EPA 625 SOP C-90 Rev 3.5	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev3.4	NELAP	Aqueous
VOA EPA 624 - NPDES	EPA 624 SOP C-89 Rev3.3	NELAP	Aqueous



Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

			Reporting	
Analyte	Result	Qualifier	Limit	Units

Thur, to	 		
Field ID: BDD Comp		San	nple ID: 1607026-01
NVOA GCMS			
Acenaphthene	 U	5.3	ug/L
Acenaphthylene	 U	5.3	ug/L
Anthracene	 U	5.3	ug/L
Benzo(A)Anthracene	 U	5.3	ug/L
Benzo(A)Pyrene	 U	5.3	ug/L
Benzo(B)Fluoranthene	 U	5.3	ug/L
Benzo(G,H,I)Perylene	 U	5.3	ug/L
Benzo(K)Fluoranthene	 U	5.3	ug/L
Chrysene	 U	5.3	ug/L
Dibenzo(A,H)Anthracene	 U	5.3	ug/L
Fluoranthene	 U	5.3	ug/L
Fluorene	 U	5.3	ug/L
Indeno(1,2,3-Cd)Pyrene	 U	5.3	ug/L
Naphthalene	 U	5.3	ug/L
Phenanthrene	 U	5.3	ug/L
1,2,4-Trichlorobenzene	 U	5.3	ug/L
2,4,6-Trichlorophenol	 U	5.3	ug/L
2,4-Dichlorophenol	 U	5.3	ug/L
2,4-Dimethylphenol	 UL	5.3	ug/L
2,4-Dinitrotoluene	 U	5.3	ug/L
2,6-Dinitrotoluene	 U	5.3	ug/L
2,4-Dinitrophenol	 U	32	ug/L



Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

	Analyte	Result	Qualifier	Reporting Limit	Units	
Field ID:	BDD Comp			San	nple ID: 16070)26-01
NVO	A GCMS					
	2-Chloronaphthalene		U	5.3	ug/L	
	2-Chlorophenol		U	5.3	ug/L	
	2-Nitrophenol		U	5.3	ug/L	
	3,3'- Dichlorobenzidine		U	5.3	ug/L	
-	4,6-Dinitro-2-Methylphenol		U	11	ug/L	
	4-Bromophenyl-Phenylether		U	5.3	ug/L	
	4-Chloro-3-Methylphenol		U	5.3	ug/L	
	4-Chlorophenyl-Phenylether		U	5.3	ug/L	
	4-Nitrophenol		U	5.3	ug/L	
	Bis(-2-Chloroethoxy)Methane		U	5.3	ug/L	
	Bis(2-Chloroethyl)Ether		U	5.3	ug/L	
	Bis(2-Chloroisopropyl)Ether		U	5.3	ug/L	
	Bis(2-Ethylhexyl)Phthalate		U	5.3	ug/L	
	Butylbenzylphthalate		U	5.3	ug/L	
	Azobenzene		U	5.3	ug/L	
	Diethylphthalate		U	5.3	ug/L	
	Dimethyl Phthalate		U	5.3	ug/L	18.
	Di-N-Butyl Phthalate		U	5.3	ug/L	
	Di-N-Octyl Phthalate		U	5.3	ug/L	
	Hexachlorobenzene		U	5.3	ug/L	
	Hexachlorobutadiene		U	5.3	ug/L	

U

5.3

ug/L

Hexachlorocyclopentadiene

U.S.E.P.A Region 2 Laboratory
NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Reported: 9/15/2016





Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

Reporting

	Analyte	Result	Qualifier	Limit	Units	
Field ID: 1	BDD Comp			Samp	ple ID: 16070	026-01
NVO	A GCMS					
	Hexachloroethane		U	5.3	ug/L	
	Isophorone		U	5.3	ug/L	
	Nitrobenzene		U	5.3	ug/L	
	N-Nitrosodimethylamine		U	5.3	ug/L	
	N-Nitroso-Di-N-Propylamine		U	5.3	ug/L	*
	N-Nitrosodiphenylamine		U	5.3	ug/L	
	Pentachlorophenol		U	5.3	ug/L	
	Phenol		U	5.3	ug/L	
	Pyrene		U	5.3	ug/L	
Pest/	PCBs GC					
	alpha-BHC		U	0.0027	ug/L	
	gamma-BHC (Lindane)		U	0.0027	ug/L	
	beta-BHC		U	0.0027	ug/L	
	delta-BHC		U	0.0027	· ug/L	
	Heptachlor epoxide		U	0.0027	ug/L	
	Endosulfan I		U	0.0027	ug/L	,
	4,4'-DDE		U	0.0053	ug/L	
	Dieldrin		U	0.0053	ug/L	
	Endrin		U	0.0053	ug/L	

U

U

U

0.0053

0.0053

0.0053

ug/L

ug/L

ug/L

4,4'-DDD

4,4'-DDT

Endosulfan II



Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

	E		Reporting	
Analyte	Result	Qualifier	Limit	Units

Field ID: BDD Comp			Sam	ple ID: 1607026-01	
Pest/PCBs GC					
Endrin aldehyde		U	0.0053	ug/L	
Endosulfan sulfate		U	0.0053	ug/L	
Chlordane		U	0.066	ug/L	
Aroclor 1016		U	0.033	ug/L	
Aroclor 1221					
		U	0.066	ug/L	
Aroclor 1232		U	0.033	ug/L	
Aroclor 1242		U	0.033	ug/L	
Aroclor 1248	5	U	0.033	ug/L	
Aroclor 1254		U	0.033	ug/L	
Aroclor 1260		U	0.033	ug/L	
Metals ICP	*				
Antimony		U	20	ug/L	
Arsenic		U	8.0	ug/L	sil.
Cadmium		UJ	3.0	ug/L	
Chromium		U	5.0	ug/L	
Copper	19	J	10	ug/L	
Lead	1 	U	8.0	ug/L	
Magnesium	860,000		500	ug/L	
Manganese	83		5.0	ug/L	
Nickel		U	20	ug/L	
Selenium		U	20	ug/L	
Silver		UJ	5.0	ug/L	

U.S.E.P.A Region 2 Laboratory

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Reported: 9/15/2016





Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

	Analyte	Result	Qualifier	Reportin Limit		,
Field ID:	BDD Comp				Sample ID: 16070	026-01
Meta	Is ICP					
	Thallium		UJ	20	ug/L	
	Zinc		UJ	20	ug/L	
Merc	ury CVAA					
	Mercury		U	0.2	ug/L	
Field ID:	BDD Grab			[Sample ID: 16070	026-02
GC -	Sanitary					
	Oil & Grease		U	5.0	mg/L	
	Petroleum Hydrocarbons, Tot.		U	5.0	mg/L	
Sanit	ary					
	Cyanide, Total		UL	10	ug/L	
	Organic Carbon	1.0		1.0	mg/L	
-	Residue, Non-Filterable	15		10	mg/L	
Field ID:	BDD VOA Grab#1				Sample ID: 1607	026-03
VOA	GCMS					
(A)	Chloromethane		U	5.0	ug/L	**
	Vinyl Chloride		U	5.0	ug/L	
	Bromomethane		U	5.0	ug/L	20
	Chloroethane		U	5.0	ug/L	*
	Trichlorofluoromethane		U	5.0	ug/L	
	1,1-Dichloroethene		U	5.0	ug/L	
	Methylene Chloride		U	5.0	ug/L	



Final Report

Project:Bayonne Dry Dock(sump) - 1607026 Project Number: 1607026

			Reporting	
Analyte	Result	Qualifier	Limit	Units

Field ID: BDD VOA Grab#1		San	nple ID: 1607026-03
VOA GCMS			
Acrylonitrile	 U	5.0	ug/L
trans-1,2-Dichloroethene	 U	5.0	ug/L
1,1-Dichloroethane	 U	5.0	ug/L
Chloroform	 U	5.0	ug/L
1,1,1-Trichloroethane	 U	5.0	ug/L
Carbon Tetrachloride	 U	5.0	ug/L
1,2-Dichloroethane	 U	5.0	ug/L
Benzene	 U	5.0	ug/L
Trichloroethene	 U	5.0	ug/L
1,2-Dichloropropane	 U	5.0	ug/L
Bromodichloromethane	 U	5.0	ug/L
cis-1,3-Dichloropropene	 U	5.0	ug/L
Toluene	 U	5.0	ug/L
trans-1,3-Dichloropropene	 U	5.0	ug/L
1,1,2-Trichloroethane	 U	5.0	ug/L
Tetrachloroethene	 U	5.0	ug/L
Dibromochloromethane	 U	5.0	ug/L
Chlorobenzene	 U	5.0	ug/L
Ethylbenzene	 U	5.0	ug/L
Bromoform	 U	5.0	ug/L
1,1,2,2-Tetrachloroethane	 U	5.0	ug/L
1,3-Dichlorobenzene	 U	5.0	ug/L

U.S.E.P.A Region 2 Laboratory

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Reported: 9/15/2016



Final Report

Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

	Analyte	Result	Qualifier	Reporting Limit	Units	
Field ID:	BDD VOA Grab#1			Sam	ple ID: 16070	026-03
VOA	GCMS					
	1,4-Dichlorobenzene		U	5.0	ug/L	
	1,2-Dichlorobenzene		U	5.0	ug/L	
Field ID:	BDD VOA Grab#2			San	nple ID: 16070	026-04
VOA	GCMS					
	Chloromethane		U	5.0	ug/L	
	Vinyl Chloride		U	5.0	ug/L	
	Bromomethane		U	5.0	ug/L	
	Chloroethane		U	5.0	ug/L	
	Trichlorofluoromethane		U	5.0	ug/L	
	1,1-Dichloroethene		U	5.0	ug/L	
	Methylene Chloride		U	5.0	ug/L	
	Acrylonitrile		U	5.0	ug/L	
	trans-1,2-Dichloroethene		U	5.0	ug/L	
	1,1-Dichloroethane		U	5.0	ug/L	
	Chloroform		U	5.0	ug/L	
	1,1,1-Trichloroethane		U	5.0	ug/L	
	Carbon Tetrachloride		U	5.0	ug/L	
	1,2-Dichloroethane		U	5.0	ug/L	
	Benzene		U	5.0	ug/L	
	Trichloroethene		U	5.0	ug/L	
	1,2-Dichloropropane		U	5.0	ug/L	



Final Report

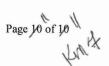
Project:Bayonne Dry Dock(sump) - 1607026

Project Number: 1607026

		-
	Reporting	l
Analyte	Result Qualifier Limit Units	I

Field ID: BDD VOA Grab#2			San	mple ID: 1607026-04
VOA GCMS				
Bromodichloromethane		U	5.0	ug/L
cis-1,3-Dichloropropene		U	5.0	ug/L
Toluene		U	5.0	ug/L
trans-1,3-Dichloropropene		U	5.0	ug/L
1,1,2-Trichloroethane		U	5.0	ug/L
Tetrachloroethene		U	5.0	ug/L
Dibromochloromethane		U	5.0	ug/L
Chlorobenzene		U	5.0	ug/L
Ethylbenzene	^	U	5.0	ug/L
Bromoform		U	5.0	ug/L
1,1,2,2-Tetrachloroethane		U	5.0	ug/L
1,3-Dichlorobenzene		U	5.0	ug/L
1,4-Dichlorobenzene		U	5.0	ug/L
1,2-Dichlorobenzene		U	5.0	ug/L

Reported: 9/15/2016



... Attachment #3: EPA Form 3560-3

	ronmental Protection Agency gton, D.C. 20460				
Water Complian	ce Inspection Rep	ort			
Section A: Nat	tional Data System Coding (i.	e., PCS)			
Transaction Code NPDES 1 N 2 5 3 N 3 0 Z Z 5 7 4 6 11	yr/mo/day 12 / 6 0 7 1 3 17 Remarks	Inspection Type	Inspector Fac Type 19 R 20 2		
21 MIAIBI					
Inspection Work Days Facility Self-Monitoring Evaluation Ratin 70 5	ng BI QA 71 [] 72 [N]	73 74 79	-Reserved5		
	Section B: Facility Data				
Name and Location of Facility Inspected (For industrial users of include POTW name and NPDES permit number) Bayonne Dry Dock & Repair Corperts Fort Terminal Blvd 100 Milital	discharging to POTW, also O. Inc. TY Ocean Termina)	Entry Time/Date 07/06/16 Exit Time/Date	Permit Effective Date Permit Expiration Date		
Bayonne, Hudson County, NJ	07002	07/13/16	r erinit Expiration Date		
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Michael Cranston, President	Number(s)		g., SIC NAICS, and other		
Kevin Sullivan Matthew urm (consultant) Chris	(consultant) Stine Kretzmer	512: 373 Ship Bi	uilding & Repair		
	Name, Address of Responsible Official/Title/Phone and Fax Number Contacted Kevin Sullivan, Operations Manager & Yes \(\Delta \) No Ksullivand bayonne drydock com				
(201)823-9225 FAX: (201)82					
Section C: Areas Evaluated D		those areas evaluate	d)		
Permit Self-Monitoring Records/Reports Compliance So		MS	34		
Records/Reports Compliance Schedules Pollution Prevention Facility Site Review Laboratory Storm Water					
Effluent/Receiving Waters Operations & Maintenance Combined Sewer Overflow					
Flow Measurement Sludge Handlin	g/Disposal Sanitary Sew	er Overflow			
(Attach additional sheets of narrative and c	Summary of Findings/Comme Checklists, including Single Ev	ents vent Violation codes, a	as necessary)		
SEV Codes SEV Description					
00000					
Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fa	x Numbers	Date		
Kathleen M. Faley	USEPA-Region 3	U.T	2/6/17		
Signatore of Management Q A Reviewer	Agency/Office/Phone and Fa	x Numbers	Date 2/14/17		
PA Form 350-3 (Rev 4-06) Previous editions are obsolete.		2-1 0-04 10-10	<u> </u>		

INSTRUCTIONS

Section A: National Data System Coding (i.e., PCS)

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be new unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. (Use the Remarks columns to record the State permit number, if necessary.)

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

-					
Α	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
В	Compliance Biomonitoring	X	Toxics Inspection Sludge - Biosolids	@	Follow-up (enforcement)
D	Compliance Evaluation (non-sampling) Diagnostic	#	Combined Sewer Overflow-Sampling	{	Storm Water-Construction-Sampling
F	Pretreatment (Follow-up)	\$	Combined Sewer Overflow-Non-Sampling Sanitary Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
G	Pretreatment (Audit) Industrial User (IU) Inspection	*	Sanitary Sewer Overflow-Sampling Sanitary Sewer Overflow-Non-Sampling		Storm Water-Non-Construction-Sampling
j	Complaints	\	CAFO-Sampling CAFO-Non-Sampling	~	Storm Water-Non-Construction-
M N	Multimedia Spill	2	IU Sampling Inspection	_ (Non-Sampling Storm Water-MS4-Sampling
Ö	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		Storm Water-MS4-Non-Sampling
Р	Pretreatment Compliance Inspection Reconnaissance	4 5	IU Toxics Inspection IU Sampling Inspection with Pretreatment	>	Storm Water-MS4-Audit
R S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the lead agency in the inspection.

Column 13. Inspector Court of the Court of t					
A — State (Contractor) B EPA (Contractor) E — Corps of Engineers J — Joint EPA/State Inspectors—EPA Lead L Local Health Department (State) N — NFIC Inspectors	 O— Other Inspectors, Federal/EPA (Specify in Remarks columns) P— Other Inspectors, State (Specify in Remarks columns) R — EPA Regional Inspector S — State Inspector T — Joint State/EPA Inspectors—State lead 				

Column 20: Facility Type. Use one of the codes below to describe the facility.

- 1 Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 Federal. Facilities identified as Federal by the EPA Regional Office.
- 5 Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.